

Serial No. 10/626,432

Page 2 of 7

**IN THE CLAIMS**

1. (currently amended) A data ~~transmission~~ communication apparatus comprising:

a transmission side; and

a reception side that includes:

a spread spectrum processing part that performs a spread spectrum process on an input signal;

an analog-to-digital conversion part that performs an analog-to-digital conversion process on a signal that has undergone said spread spectrum process; and

an inverse spread spectrum processing part that performs an inverse spread spectrum process of said spread spectrum process on a signal that has undergone said analog-to-digital conversion process.

2. (original) The data transmission apparatus as claimed in claim 1, wherein said spread spectrum process is performed using a predetermined PN sequence.

3. (original) The data transmission apparatus as claimed in claim 2, wherein a PN sequence number of said PN sequence is set to a value that is adequate for substantial improvement in the precision of said analog-to-digital conversion process so that transmission data contained in the input signal can be detected with predetermined precision.

4. (original) The data transmission apparatus as claimed in claim 1, further comprising:

a gain controlling part that performs a signal gain controlling process on an input signal,

wherein

84180979\_1.DOC

NYC01\_84180017\_1\_100794\_002R4 12/5/2006 10:34 AM

Serial No. 10/626,432

Page 3 of 7

said spread spectrum processing part performs a spread spectrum process on a signal that has undergone said signal gain controlling process.

5. (currently amended) A power line carrier communication system comprising:

a power line functioning as a data transmission path for transmitting data; and

a data ~~transmission~~ communication apparatus that terminates said power line, said data ~~transmission~~ communication apparatus comprising:

a transmission side; and

a reception side that includes

a spread spectrum processing part that performs a spread spectrum process on an input signal;

an analog-to-digital conversion part that performs an analog-to-digital conversion process on a signal that has undergone said spread spectrum process; and

an inverse spread spectrum processing part that performs an inverse spread spectrum process of said spread spectrum process on a signal that has undergone said analog-to-digital conversion process.

6. (currently amended) A data ~~transmission~~ reception method comprising:

a spread spectrum processing step of performing a spread spectrum process on an input signal;

84180979\_1.DOC

Serial No. 10/626,432

Page 4 of 7

an analog-to-digital conversion step of performing an analog-to-digital conversion process on a signal that has undergone said spread spectrum process; and

an inverse spread spectrum processing step of performing an inverse spread spectrum process of said spread spectrum process on a signal that has undergone said analog-to-digital conversion process.

7. (currently amended) The data ~~transmission~~reception method as claimed in claim 8, wherein said spread spectrum process is performed using a predetermined PN sequence in said spread spectrum processing step.

8. (currently amended) The data ~~transmission~~reception method as claimed in claim 7, wherein a PN sequence number of said PN sequence is set to a value that is adequate for substantial improvement in the precision of said analog-to-digital conversion process so that transmission data contained in the input signal can be detected with predetermined precision.

9. (currently amended) The data ~~transmission~~reception method as claimed in claim 6, further comprising:

a gain controlling step of performing a signal gain controlling process on an input signal; wherein

said spread spectrum process of said spread spectrum processing step is performed on a signal that has undergone said signal gain controlling process.

84180979\_1.DOC